



| Meeting Name   | Date of Meeting |
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| Microgrid Services Tariff (MST) Phase 2<br>Working Group (WG) Meeting #3 | June 16, 2022   |

Agenda

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| <b>Meeting Objective(s)</b>  | <p>1) Discuss “Resilience services and compensation, including societal and environmental value, to inform development of a resilience tariff”</p> <p>2) Obtain update on ETIPP re: “identifying community needs” and “customer education and outreach”</p>  |
| <b>Review of Objectives &amp; Ground Rules</b>   | <ul style="list-style-type: none"> <li>No additional feedback received on WG objectives or drafted ground rules</li> </ul>   |
| <p><b>Guest Speaker: Joe Paladino, Office of Electricity (US Department of Energy)</b></p> <p>“Resilience services and compensation, including societal and environmental value, to inform development of a resilience tariff”</p> | <p>See slides for presentation</p> <ul style="list-style-type: none"> <li>Q: Can a microgrid (MG) developer apply the “best-fit most reasonable cost” model?<br/>A: If the community agrees a MG makes sense, this could be seen as a policy decision; however this gets complicated with third parties (in terms of who pays) before you can assess cost effectiveness.</li> <li>Q: How do you balance different objectives in the “best-fit most reasonable cost” model?<br/>A: This requires a discussion upfront to determine why the community wants or needs a MG; does a MG provide the same resilience as other (potentially cheaper) options?</li> <li>Q: Regarding subsidization, how are federal grants applicable?<br/>A: See the <a href="#">Infrastructure Investment and Jobs Act (IIJA)</a> Sec. 40101; the Federal Government will provide grants to states to support resilience investments including MGs; states then decide where to allocate funds. There is a formula grant component and competitive program.</li> </ul> <p>General Discussion:</p> <ul style="list-style-type: none"> <li>A “technology-neutral” perspective may not include a MG to get to the same resiliency objective (one size does not fit all)</li> <li>In some cases, the customer should pay for a MG; would need to determine if there is a benefit to the grid or not (i.e. a university MG)</li> <li>For a MG tariff, we need to understand who it is serving and why (could be more limited than a PPA); need to determine “grid code” (roles and responsibilities of MG operator and grid operator); could learn from existing deals (general provisions by tailor by project)</li> </ul> |
| <p><b>Guest Speakers: Ken Aramaki (HECO) and Katy Waechter (NREL)</b></p>  | <p>See slides for presentation</p> <ul style="list-style-type: none"> <li>Q: Will the final map be available to the public or interested parties?<br/>A: Yes, the original vision was to provide to customers; NREL to handoff GIS layers to Hawaiian Electric to reformulate for other islands (since the project scope is specific to Oahu)</li> </ul>   |



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|                              | <ul style="list-style-type: none"> <li>Q: Are there any other layers besides distributed energy resources (DER) to show “low lifts” for developers to come in? Will there be a list of equipment available for developers?<br/>A: Multiple maps will be available with different weighting of criteria to help developers/state agencies; no plans to have list of equipment because each area will be highly customized; in the tariff there is a Feasibility Analysis process to determine initial technical insights</li> <li>Q: What type of DER is included in the map?<br/>A: DER clusters include solar photovoltaic (PV) and PV plus battery storage</li> <li>Q: How will you visualize the vulnerability of lines serving critical loads and low income customers?<br/>A: The final map will be a heat map that will include switches; the draft map only shows individual data</li> <li>Q: Will further analysis be done on scoring areas?<br/>A: Yes, there is a plan to rank clusters in final report; final rank weighting will incorporate power analysis and community feedback</li> </ul> |
| <b>Open Discussion</b>       | <ul style="list-style-type: none"> <li>Christyn and Marcey requesting Commission guidance on prioritization on Working Group efforts for Customer Microgrids, Hybrid Microgrids with utility as MG operator plus use of partners, and Hybrid Microgrids with a third-party as MG operator; different contractual issues per type</li> <li>Jerry noted that we will need to consider Hawaii context and probability of realization, want to keep tariff as practical as possible</li> <li>Samantha suggested to start a list of areas of agreement for future meetings; Christyn and Marcey to draft</li> </ul>  |
| <b>Next Meeting</b>          | <ul style="list-style-type: none"> <li>Christyn suggested next meeting to be on July 12 to discuss “MG Compensation and Grid Services” and “Utility Compensation/Standby charges, exit fees, and/or other charges”, pending guest speaker availability</li> <li>Suggestions for guest speakers include Schneider, Microgrid Knowledge, California Public Utilities Commission staff, and Enchanted Rock (MG developer)</li> <li>Christyn to add Katie and Claire from Gridworks to future meetings per direction from Commission staff</li> </ul>   |
| <b>Working Group Chairs:</b> |   |
| Christyn Senda, HE           | Co-Chair <a href="mailto:christyn.senda@hawaiianelectric.com">christyn.senda@hawaiianelectric.com</a>   |
| Marcey Chang, DCCA           | Co-Chair <a href="mailto:mchang@dcca.hawaii.gov">mchang@dcca.hawaii.gov</a>   |
| <b>Attendees:</b>            |   |



Alan Lee, HE  
Anand Samtani, Hawaii PUC  
Andrew Nojiri, HE  
Andrew Okabe, Hawaii PUC  
Ashley Agcaoili, Hawaii PUC  
Blaine Hironaga, HE  
Bryant Komo, HE  
Claire Halbrook, Gridworks (Hawaii PUC)  
Gerald Sumida, Carlsmith Ball (Ulupono)  
Gina Yi, Hawaii PUC  
Joe Paladino, DOE  
Kaiulani Shinsato, HE  
Katy Waechter, NREL  
Ken Aramaki, HE  
Kevin Oda, HE  
Leland Cockcroft, HE  
Lisa Dangelmaier, HE  
Marc Asano, HE  
Mark Wong, HE  
Peter Young, HE  
Riley Ceria, HE  
Samantha Ruiz, Ulupono  
Tracie Black, HE  
Yoh Kawanami, HE